

## REMARKS

The combination of infrared scanning and microwave motion detection is an innovative approach to termite detection. Used together, these two technologies allow for a meticulous process of elimination, logically narrowing down the range of possibilities step by step. Each step – for example, infrared detection of moisture-detects and identifies a particular problem, thus simultaneously eliminating certain other possibilities. Each step has its limitations, but taken as a whole, each subsequent step compensates for the previous step's inadequacies. The result is a more scientific and objective approach to termite detection compared to past methods.

Claims 1, 2, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,495,518 to Sanoian in view of U.S. Patent Application Publication 2003/0146840 to Donskoy et al. (hereinafter Donskoy). The presently claimed invention discloses an efficient and nondestructive method to confirm termite infestation in a residential structure. The claims have been amended to show that the residential structure is first inspected for moisture using a thermal imaging camera. Support for this Amendment is found at paragraphs 14 and 27.

The Court of Appeals for the Federal Circuit has explicitly addressed § 103 and followed the approach the Supreme Court set forth for applying that provision. Section 103 provides, in pertinent part:

A patent may not be obtained...if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

35 U.S.C. § 103(a).

The Supreme Court in *Graham* held that:

While the ultimate questions of patent validity is one of law, the § 103 condition, which is but one of three conditions, each of which must be satisfied, lends itself to several basic factual inquiries. Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or

nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy.

*Graham v. John Deere, Co.*, 383 U.S. 1 (1966).

Thus, under *Graham*, the obviousness inquiry is highly fact specific, and requires an examination of the following: (1) the scope and content of the prior art; (2) the differences between the patented invention and what already existed in the prior art; (3) the ordinary level of skill of people working in the field; and (4) other objective evidence which may suggest that the invention would not have been obvious. The Court also warned lower courts to “guard against slipping into use of hindsight,” ...and to resist the temptation to read into the prior art the teachings of the invention in issue.” 383 U.S. at 36. *See also Ashland Oil, Co. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 291 (Fed. Cir. 1985), *cert. denied* 475 U.S. 1017 (1986).

Moreover, the Federal Circuit’s so-called “teaching-suggestion-motivation” standard for obviousness is fully consistent with *Graham* and its progeny. Under that standard, there must be some motivation or suggestion to combine specific prior art in such a way as to arrive at the particular combination disclosed in the patent at issue. *See, e.g., Ecolochem, Inc. v. Southern California Edison Co.*, 227 F.3d 1361, 1372 (Fed. Cir. 2000), *cert. denied*, 532 U.S. 974 (2001); *Ashland Oil*, 776 F.2d at 293. Importantly, as *Graham* instructed, the injection of hindsight in evaluating obviousness must be avoided; the requirement of a suggestion to combine prior art prevents hindsight reconstruction by accused infringers who try to use the patent-in-suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit. *See, e.g., Yamanouchi Pharmaceutical Co., Ltd, v. Danbury Pharmacal, Inc.*, 231 F.3d 1339, 1343 (Fed. Cir. 2000) (“the suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness.”); *Ecolochem*, 227 F.3d at 137-72 (“Combining prior art references without evidence of a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability –the essence of hindsight.”) (citations omitted); *Grain Processing Corp. v. American Maize-Products Co.*, 840 F.2d 902, 907 (Fed. Cir. 1988).

As the Court of Appeals for the Federal Circuit has stated multiple times before, an invention also may not be rendered obvious unless the prior art is sufficiently enabling. *Motorola, Inc. v. Interdigital Technology Corp.*, 121 F.3d 1461, 1471 (Fed. Cir. 1997); *Beckman Instruments, Inc. v. LKB Produkter AB*, 892 F.2d 1547, 1551 (Fed. Cir. 1989).

The rejection of pending claims 1, 2, 6 and 7 as unpatentable under 35 U.S.C. § 103(a) are respectfully traversed, since a *prima facie* case of obviousness has not been made by the Examiner. To establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), each of three requirements must be met. First, the reference or references, taken alone or in combination, must teach or suggest each and every element recited in the claims. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Moreover, each of these requirements must “be found in the prior art, and not be based on applicant’s disclosure.” (See M.P.E.P. § 2143 (8<sup>th</sup> Ed. 2001)). Applicant submits that these requirements have not been met for at least the following reasons:

Sanoian discloses an infrared test for wooden utility poles to detect structural unsoundness. Sanoian does not disclose or suggest detection of residential structures. Sanoian does not relate to detection of active termite infestation but rather to the “rot” that can result in a wooden pole as a result of such past infestation. Additionally, Sanoian does not disclose heating or cooling the pole prior to taking the infrared scan of the object.

Donskoy discloses a device to nondestructively detect the presence of insects in a structure using microwave radiation. The Donskoy invention; however, does not allow for a rapid inspection of the residential structure. The use of the microwave technique alone to detect insects in a residential structure is time consuming. It is applicant’s discovery of first screening the house for moisture and then checking only those spots for termites using a microwave detector. This process allows for rapid and nondestructive detection of those insects.

Sanoian does not disclose or suggest any of the claimed elements and thus cannot be modified by Donskoy to provide the claimed invention.

Clearly, the application of microwave motion detection is not obvious because

microwave technology has been available for many years, yet the pest control industry has continued to use more destructive and invasive techniques for visual confirmation.

Applicant respectfully suggests that the pending claims are in condition for allowance.

Respectfully Submitted,

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